JOURNAL OF MYCOLOGY.

Vol. III. MANHATTAN, KANSAS, JUNE, 1887. No. 6.

ENUMERATION AND DESCRIPTION OF THE SEPTORIAS OF NORTH AMERICA.

BY GEORGE MARTIN, M. D.

(Continued from page 53.)

55. SEPTORIA GOSSYPINA, Cke. Grev. XII, p. 25; Sylloge III, p. 516; Rav. F. A., No. 509.

Epiphyllous; spots white, irregular, border purple; perithecia punctiform, central, black, semi-innate, 130—150 μ in diam.; sporules hyaline, linear, "50 x 1 μ." On leaves of *Gossypium*. South Carolina.

56. SEPTORIA GRAMINUM, Desm. Grev. III, p. 10; Sylloge III, p. 565; Ellis, N. A. F., No. 780.

Spots pallid, narrow, elongated, limited by the nerves, often with a narrow brown margin; perithecia brown, curved, obscure at first, then rupturing and leaving a concave disk, scattered, 150 μ in diam.; sporules hyaline, linear, flexuous, entire, minutely nucleolate, 55—75 x 1—1.3 μ. On *Panicum sanguinale*. New Jersey.

57. SEPTORIA GRATIOLÆ, E. & M. Journ. Mycol. I, p. 107.

Perithecia punctiform, minute, emergent, scattered over the faded leaves, but not in definite spots; sporules filiform, nucleate, straight or somewhat curved, continuous, 30—40 x ½—1 μ. On fading leaves of *Gratiola quadridentata*. Florida.

58. SEPTORIA HELIANTHI, E. & K. Am. Nat. XVII, p. 1165; Ellis, N. A. F., No. 1184.

Spots brown, 2—8 millim. broad, border yellowish; perithecia brown, immersed, collapsing, epiphyllous, 150 μ in diam.; sporules hyaline, linear, generally attenuated towards the ends, nucleolate, becoming 3—5-septate, 30—70 x 2—3 μ. On *Helianthus doronicoides*. Kansas.

59. SEPTORIA HOSACKIÆ, Hark. Bull. Cal. Acad., February, 1884, p. 31; Sylloge III, 508.

"Spots irregular, brownish yellow; perithecia minute, amphigenous; sporules hyaline, filiform, flexuous, 3—7-septate, 64 x 4 μ." On living leaves of *Hosackia strigosa*. California.

60. SEPTORIA HYDROCOTYLES, Desm. Sylloge III, p. 531; Ellis, N. A. F., No. 1131.

Spots brownish, then pallid, subregular, one millim. in diam., border red-brown, narrow; perithecia black, flattened, innate, epiphyllous, 60—70 μ in diam.; sporules hyaline, linear, curved, 8—10-guttulate ("16—25 x 1—2 μ," Sacc.), 30—40 x 1—2 μ. On *Hydrocotyle repanda*. Florida.

61. SEPTORIA ILICIFOLIA, Cke. & Ellis; Grev. VI, p. 85; Sylloge III, p. 483.

"Spots pallid, with a brown border; perithecia punctiform, black, semi-immersed; sporules minute, hyaline." On leaves of *Ilex*. New Jersey.

62. SEPTORIA INCONSPICUA, B. & C. Grev. III, p. 9; Sylloge III, p. 554; Ellis, N. A. F., No. 1145.

Spots white or light gray, 1—3 millim. broad, border narrow, light brown; perithecia brown-black, lenticular, amphigenous, scattered, 70—80 μ; sporules hyaline, linear, straight, 20—28 x 1—1½ μ, continuous. On leaves of *Plantago lanceolata*. N. Jersey.

63. SEPTORIA INCRESCENS, Pk. 33d Rep. N. Y. S. Mus., p. 25; Sylloge III, p. 533.

"Spots minute at first, then large, brown, dry in the center; perithecia minute, black; sporules filiform, curved or flexuous, 30—40 μ long." On leaves of *Trientalis Americana*. New York.

64. SEPTORIA INFUSCATA, Winter. Journ. Mycol. I, p. 122.

"Spots large, somewhat round or irregular, dull grey, often variegated and subzoned, border brown, indeterminate, generally 20 millim. long, six millim. broad; perithecia loosely clustered, prominent, globose, black, membranaceous, thin, 87—105 μ in diam.; sporules filiform, ends rounded, a little enlarged upwards, multiseptate, hyaline, 50—70 x 1½—2 μ." On living leaves of *Lepachys pinnata*. Missouri.

65. SEPTORIA IRREGULARIS, Pk. Bot. Gaz. V, p. 34; Sylloge III, p. 484; N. A. F., No. 1127.

Spots small, angular, often confluent, at first yellowish above, then reddish-brown, with a narrow, darker border, brown or grayish-brown beneath; perithecia hypophyllous, sometimes amphigenous, irregular, black; sporules numerous, filiform, hyaline, 30—45 μ long. On living leaves of *Rhus Toxicodendron*. Illinois and New Jersey. Specimen 1127, N. A. F., has sporules 50—60 x 3—4 μ, 3—5-septate.

66. SEPTORIA KALMIÆCOLA (Schw.), B. & Curt. Grev. III, p. 9; Sylloge III, p. 499; N. A. F., No. 344.

Spots white, orbicular, margin tumid, with a blackened ring around; perithecia lenticular, black, clustered, innate, hypophyllous; sporules hyaline, cylindrical, 21 x 1½ μ, "septorioidies." On leaves of *Kalmia latifolia*. South Carolina and Pennsylvania.

67. SEPTORIA KELLERMANIANA, Thum. Kansas Academy of Science, Nov. 25, 1884, p. 81; Journ. Mycol. I, p. 71.

"Sporules bacilliform, straight, slender, simple or faintly septate, 60—80 x 1½ μ." On leaves of *Vitis riparia*. Kansas.

68. SEPTORIA LACTUCÆ, Pass. Sylloge III, p. 551; Bot. Gazette III and IV, p. 170; Ellis, N. A. F., No. 345.

Spots pallid or ferruginous, irregular, indefinite; perithecia dark brown, amphigenous, scattered, 80—90 μ in diam.; sporules hyaline, filiform, straight or curved, entire, 25—35 x 1½—2 μ. On leaves of *Lactuca sativa*. Illinois and New Jersey.

69. SEPTORIA LACTUCICOLA, E. & M. Am. Nat. XVI, p. 1002; Sylloge III, p. 552; Ellis, N. A. F., No. 1613.

Spots large, red brown, 12—30 millim. broad; perithecia brown, innate, amphigenous, scattered, 80—85 μ in diam.; sporules hyaline, filiform, often curved, 25—40 x 1½ μ. On living leaves of *Lactuca Canadensis*. New York.

70. SEPTORIA LAMII, Passer. Sylloge III, p. 538; Ellis, N. A. F., No. 1149.

Spots gray or pallid, limited by the veins, irregular; perithecia black, epiphyllous, scattered, 60—70 μ in diam.; sporules filiform, hyaline, flexuous ("continuis?"), 30—40 x 1½ μ. On leaves of *Leonurus Marurbiastrum*. Pennsylvania.

71. SEPTORIA LEPIDIICOLA, E. & M. Am. Nat. XVI, p. 1002; Sylloge III, p. 519; Ellis, N. A. F., No. 1147.

Spots pallid, subregular, three fourths millim. in diam.; perithecia chestnut brown, aggregated, 74 μ in diam.; sporules hyaline, cylindrical, slightly curved, ends obtuse, guttulate or septate, 24—30 x 2½—3 μ. On leaves of *Lepidium Virginicum*. Pennsylvania.

72. SEPTORIA LEPTOSTACHYA, E. & K. Bull. Torr. Bot. Club II, p. 115.

Spots pale brown, subrotund, scattered or confluent, dry, mostly limited by the veinlets, 2—4 millim. in diam.; perithecia brown-black, very delicate, slightly prominent, amphigenous, scattered, 65—80 μ; sporules hyaline, filiform, slightly undulate-curved, entire, 20—22 x 1 μ. On *Phryma Leptostachya*. Ohio.

73. SEPTORIA LIQUIDAMBARIS, C. & E. Grev. VIII, p. 11; Sylloge III, p. 501; Ellis, N. A. F., No. 530.

Spots brown, suborbicular, 1—2 millim. in diam.; perithecia brown-black, subglobose, stomatous, prominent, clustered, hypophyllous, 80 μ in diam.; sporules hyaline, linear, curved, ends slightly attenuated and rounded, 3—5-septate, 50—60 x 3 μ. On leaves of *Liquidambar styraciflua*. New Jersey.

74. SEPTORIA LOBELIÆ, Pk. 26th Rep. N. Y. S. Mus., p. 87; Sylloge III, p. 532.

Spots pallid or nearly white, subcircular, often confluent, dry, 4—5 millim. in diam.; border brown, purple or black; perithecia black, flattened, innate, prominent, epiphyllous ("amphigenous"), clustered, numerous, 100—130 μ in diam.; sporules hyaline, filiform, nearly straight, 26—40 x 1—1½ μ ("17—25 μ long"). On leaves of *Lobelia spicata* and *L. syphilitica*. New York to Iowa.

75. SEPTORIA LOPHANTHI, Winter. Hedwigia, 1883, p. 71; Sylloge III, p. 533.

Spots brown-black, angular, 1—3 millim. broad, often confluent; perithecia black, subglobose, immersed, gregarious, amphigenous, 150—200 μ in diam.; sporules hyaline, filiform, flexuous or curved, ends subacute or one end rounded, entire or sparingly septate, 35—55 x 2—2½ μ, exuding in white threads, often covering the perithecia with a crust. On living leaves of *Lophanthus nepetoides*. Illinois.

76. SEPTORIA LUDWIGIÆ, Cke. Grev. VII, p. 33; Sylloge III, p. 512; Rav. F. A., No. 263.

Spots pallid, subrotund, dry, 1—2 millim. in diam., border dusky red; perithecia dark brown, innate, slightly prominent, mostly epiphyllous, 5—8 in a spot, 70—90 μ in diam.; sporules hyaline, filiform, flexuous, ends obtuse, multinucleate, (?) 40—42 x ½ μ. On leaves of *Ludwigia palustris*. South Carolina and Pennsylvania.

77. SEPTORIA LUPINI, Harkn. F. California, p. 11; Sylloge III, p. 503.

"Epiphyllous; spots indeterminate, yellowish, frequently occupying the whole leaf; perithecia minute, papillate; sporules linear, ends acute, obscurely septate, 40—60 x 4—5 μ." On living leaves of *Lupinus densiflorus*. California.

78. SEPTORIA CONSPICUA, E. & M. N. A. F., p. 1736.

Spots amphigenous, rusty brown, with a narrow, slightly raised border, suborbicular, 2—5 millim. or, by confluence, one cm. in diam., thickly scattered over the leaf; perithecia amphigenous, black, convex, numerous, 100—130 μ in diam.; sporules filiform, 40—55 x 1—1½ μ, nucleate, subhyaline. Many of the perithecia contain, also, globose, hyaline bodies, 6—8 μ in diam., similar to those found in the perithecia of *Asterina orbicularis*, B. & C. This is quite distinct from *S. Lysimachiæ*, West., which is reported by Prof. Peck in N. Y. State, 38th Rep., p. 97. On leaves of *Steironema ciliatum*. Delaware. A. Commons.

79. SEPTORIA LYTHRINA, Pk. 33d Rep. N. Y. S. Mus., p. 25; Sylloge III, p. 512.

Spots gray or gray-brown, suborbicular or irregular, 3—5 millim. broad, often with a black ring; perithecia black, subglobose, slightly prominent, clustered, mostly epiphyllous, 75—112 μ in diam.; sporules hyaline, filiform, flexuous or curved, 3-septate, 20—40 x 1 μ. On leaves of *Lythrum salicaria* and *L. alatum*. New York and Kansas.

80. SEPTORIA MAGNOLIÆ, Cke. Sylloge III, p. 475; Rav. F. A., No. 153 and 261.

Spots brown, irregular, thickened; perithecia black, subimmersed, epiphyllous; sporules linear, nucleolate, 25—30 x 1½ μ. On leaves of *Magnolia grandiflora*. Texas and South Carolina.

81. SEPTORIA MALVICOLA, E. & M. n. s.

Spots gray, partially limited by the veinlets, 2—3 millim. broad, clustered and coalescing, bordered by a yellow discoloration; perithecia black, subglobose at first, afterwards depressed, thinly membranaceous, clustered, numerous, mostly epiphyllous, 90—100 μ; sporules hyaline, linear, ends obtuse, a little curved, faintly 3—4-septate, 30—37 x 1 μ. On leaves of *Malva rotundifolia*. New York.

82. SEPTORIA MELANOPHTHALMI, B. & C. Grev. III, p. 12; Sylloge III, p. 509.

"Spots pallid, surrounded by a broad, dark-red margin; sporules sausage-shaped or waved, short, 2—3-nucleolate." On leaves of *Dolichos melanophthalmus*. North Carolina.

83. SEPTORIA MENTZELIÆ, E. & K. Journ. Mycol. II, p. 4.

Spots pallid, subregular, 5—8 millim. in diam.; perithecia black, innate, prominent on the upper surface of the leaves, visible on the under, 100 μ in diam.; sporules hyaline, linear, subundulate, nucleolate, 40—60 x 1½—2 μ. On leaves of *Mentzelia nuda*. Kansas.

84. SEPTORIA MICROSPERMA, Pk. 34th Rep. N. Y. S. Mus., p. 44; Sylloge III, p. 506.

"Spots brown, indefinite, often confluent; perithecia hypophyllous, numerous, minute, brown, dry, rugose, irregularly fissured; sporules hyaline, sausage-shaped, 9—14 μ long." On leaves of *Betula lenta*. New York.

85. SEPTORIA MIMULI, E. & K. Am. Nat. XVII, p. 1165; Journ. Mycol. I, p. 122.

"Spots gray or white, 1—2 millim. in diam., border dark; perithecia black, 4—10 in a spot, innate, equally conspicuous on both surfaces of the leaves, 80—100 μ in diam.; sporules hyaline, linear, often attenuated towards one end, yellowish, nucleolate or remotely septate, curved, 30—45 x 1½—2½ μ." On leaves of *Mimulus ringens*. Kansas and Missouri.

86. SEPTORIA MIRABILIS, Pk. 25th Rep. N. Y. S. M., p. 87; Sylloge III, p. 576; Ellis, N. A. F., No. 582.

Spots pallid or light yellow, angular, limited by the veinlets; perithecia yellow, hypophyllous, minute; sporules hyaline, oblong-obovate, entire, nucleate, one end mostly acute, 30—50 x 12 μ. On fronds of *Onoclea sensibilis*. New York and Pennsylvania.

NOTE.—This is *Gloeosporium Phegopteridis*, Pass. Sacc. Syll. III, p. 721. It is evidently not a good *Septoria* and should be referred either to *Gloeosporium* or to *Phleospora*.—EDS.

87. SEPTORIA NABALI, B. & C. Grev. III, p. 9; Sylloge III, p. 547.

Spots light to red-brown, border flat, broad, brown; perithecia brown, slightly prominent, epiphyllous, 50 μ in diam.; sporules hyaline, filiform, flexuous, occasionally 1—3-septate, 30—45 x 1½ μ. On leaves of *Nabalus alba*. New Hampshire to Pennsylvania.

88. SEPTORIA NARVISIANA, Sacc. Sylloge III, p. 568. (*S. Holoschoeni*, Sacc., Mich. I, p. 196.)

Spots obsolete; perithecia dark brown, globose, innate, erumpent, subgregarious, very delicate, 100—114 μ in diam.; sporules pale olive, cylindrico-fusoid, 5—7-septate, not constricted, slightly curved, 35—50 x 3½—4 μ. On *Scirpus maritima*. Shores of Chesapeake Bay.

89. SEPTORIA NIPHOSTOMA, B. & C. Grev. III, p. 12; Sylloge III, p. 475; Rav. F. A., No. 28; Ellis, N. A. F., p. 744.

Perithecia black, shining, epiphyllous, thickly scattered, 130—160 μ; sporules hyaline, linear, straight, ends obtuse, 3-septate, 20—25 x 2 μ; spots obsolete, leaf faded and tawny. On leaves of *Magnolia grandiflora*. Carolina and Florida.

90. SEPTORIA NOCTIFLORÆ, E. & K.

Spots pallid, round or oval, 2—3 millim. broad, border narrow, light brown; perithecia light brown, subglobose, very delicate, innate, slightly prominent, epiphyllous, 85—95 μ in diam.; sporules hyaline, subfusiform, 1-septate, 30—36 x 2—2½ μ. On *Silene noctiflora*. Kansas.

91. SEPTORIA NOLI-TANGERIS, Gerard. Bull. Torrey Bot. Club, 1873-4, p. 64; Ellis, N. A. F., p. 1137.

Spots round or oblong, light brown, 1—3 millim. in diam., with a narrow, brown, raised edge and a purplish border; perithecia brown-black, subglobose, innate, slightly prominent, clustered in the center of the spot, mostly epiphyllous, 70 μ in diam.; sporules hyaline, filiform, curved, 15—30 x 2 μ. On leaves of *Impatiens*. New York and Ohio. *S. Nolitangere*, Thum., Sylloge III, p. 514, appears to be nearly if not quite identical with the above, but as he did not publish until 1880, Gerard has the precedence.

92. SEPTORIA OCHROLEUCA, B. & C. Grev. III, p. 9; Pk., 25th Rep. N. Y. S. Mus., p. 88; Sylloge III, p. 504; Ellis, N. A. F., No. 533.

This has been transferred to *Gloeosporium* by Ellis & Everhart. See Journ. Mycol. I, 116.

93. SEPTORIA OENOTHERÆ, West. Sylloge III, p. 513; Rav. F. A., No. 32; Ellis, N. A. F., No. 38.

Spots epiphyllous, round, minute, at first greenish, then brown, with a wine-red border; perithecia black, punctiform, aggregated in the center of the spots, 120 μ in diam; sporules filiform, hyaline, curved, minutely pluriguttulate, 35—40 x 1½—2 μ. On leaves of *Oenothera biennis*. Pennsylvania to South Carolina.

94. SEPTORIA OLEANDRINA, Sacc. Sylloge III, p. 497.

Spots gray, suborbicular, 3—10 millim. broad, coalescing and at times covering the entire ends of the leaves; perithecia black, subglobose, epiphyllous, erumpent, cellular, scattered, 150—240 μ in diam.; sporules hyaline, cylindrical or cylindrico-clavate, often curved, occasionally 2-septate, 15—30 x 1½—3 μ. On frosted leaves of *Nerium Oleander*. Florida.

95. SEPTORIA OSTRYÆ, Pk. 33d Rep. N. Y. S. Mus., p. 25; Sylloge III, p. 503.

"Spots minute, subcircular, red-brown; perithecia scattered in the center of the spots, brown-black; sporules linear, greatly curved, indistinctly septate, 40—60 μ long." On the leaves and cones of *Ostrya Virginica*. New York.

96. SEPTORIA PACHYSPORA, Ell. & Hol. Journ. Mycol. I, p. 6; Ellis, N. A. F., No. 1615.

Spots snow white, round or subangular, very thin, 1—2 millim. in diam., border broad, purplish; perithecia black, lenticular, innate, erumpent, epiphyllous, 100—130 μ in diam.; sporules subhyaline, with a greenish-yellow tinge, arcuate-fusiform, 4—6-septate, 35—60 x 3 μ. On leaves of *Zanthoxylum Americanum*. Iowa.

97. SEPTORIA PASTINACINA, Sacc. Mich. II, p. 102; Pk., 33d Rep. N. Y. S. Mus., p. 24; Sylloge III, p. 528.

"Spots brown, diffused, indefinite; perithecia black, applanate, piercing the epidermis with the ostiola, 120—150 μ in diam.; sporules filiform, curved or flexuous, 20—30 x .7—1 μ." On stems of *Pastinaca sativa*. New York.

98. SEPTORIA PAUPERA, Ellis. Ellis, N. A. F., No. 748.

Spots brown, angular, darker upon the upper surface, ¼—1½ millim. broad; perithecia brown, subglobose, very delicate, innate, slightly prominent, hypophyllous, 125—130 μ in diam.; sporules hyaline, filiform, straight or flexuous, ends obtuse, 3—7-septate, 45—55 x 1—1½ μ. On leaves of *Helianthus divaricatus*.

99. SEPTORIA PECKII, Sacc. Sylloge III, p. 567; *Cryptosporium Scirpi*, Pk., 25th Rep. N. Y. S. Mus., p. 84.

"Spots pallid; perithecia black, subglobose, clustered; sporules hyaline, slightly curved, elongated-fusoid, 15—18 μ long." On *Scirpus fluviatilis*. New York.

100. SEPTORIA PENTSTEMONIS, Ell. & Evrh. Bull. of Torrey Bot. Club II, p. 73; Sylloge III, p. 534.

Spots white, dry, thin, round, 1—1½ millim. in diam., border dark purple, broad; perithecia black, flattened, innate, slightly prominent, mostly epiphyllous, 60 μ in diam.; sporules hyaline, linear, slightly curved, indistinctly nucleolate, 14—20 x 1 μ. On leaves of *Penstemon Digitalis*. Illinois.

101. SEPTORIA PHOTINIÆ, B. & C. Sylloge III, p. 489.

"Perithecia covered by the small black spots of epidermis; sporules linear, straight, short." On leaves of *Photinia*. California.

102. SEPTORIA PILEÆ, Thum. Bull. Torrey Bot. Club VI, p. 351; Sylloge III, p. 557; Peck, 34th Rep. N. Y. S. Mus., p. 45.

Spots light gray, angular or suborbicular, scattered, minute, border broad, brown olive; perithecia few or solitary, epiphyllous, minute, brown or black-brown, globose-depressed, 70 μ in diam.; sporules hyaline, filiform, lightly curved, continuous, 20—28 x 1½—2 μ. On leaves of *Pilea pumila*. Missouri.

103. SEPTORIA PLATANIFOLIA, Cke. Hedwigia, 1878, p. 38; Sylloge III, p. 500; Rav. F. A., No. 27.

Spots obsolete; perithecia brown-black, innate, slightly prominent, numerous, hypophyllous, 60—65 μ in diam.; sporules immature. On leaves of *Platanus occidentalis*. South Carolina.

104. SEPTORIA PODOPHYLLINA, Pk. Bot. Gazette IV, p. 170; Sylloge III, p. 538; Ellis, N. A. F., No. 1138.

Spots large, indefinite, reddish-brown; perithecia light brown, innate, slightly prominent, few, clustered on or near the center, collapsing when dry, epiphyllous, 98—112 μ in diam.; sporules hyaline, filiform, straight or slightly curved, 20—40 x 1½—2 μ. On leaves of *Podophyllum peltatum*. Illinois and Ohio.

105. SEPTORIA POLYGALÆ, Pk. & Cke. 29th Rep. N. Y. S. Mus., p. 43; Sylloge III, p. 531.

"Perithecia black, minute, scattered or aggregated; sporules filiform, straight or slightly curved, 25—40 μ long." On *Polygala paucifolia*. New York.

106. SEPTORIA POLYGONORUM, Desm. Sylloge III, p. 555; Ellis, N. A. F., No. 531.

Spots small, light brown, subrotund, border purple, 2—3 millim. in diam.; perithecia light brown, lenticular, becoming concave, innate, barely prominent, epiphyllous, 100—120 μ in diam.; sporules hyaline, filiform, slightly flexuous, 4—5-guttulate, 25—40 x 1—1½ μ. On leaves of *Polygonum Pennsylvanicum*. Pennsylvania.

107. SEPTORIA PRUNI, Ellis. Am. Nat. X, p. 811; Sylloge III, p. 489; Ellis, N. A. F., 1151.

Spots dark brown, dry, subrotund, soon breaking out, 1—3 millim. in diam.; perithecia brown, immersed, epiphyllous, 60 μ in diam.; sporules hyaline, linear, ends obtuse, 4—6-septate, 30—50 x 2 μ. On leaves of *Prunus Americana*. Kentucky and Kansas.

108. SEPTORIA PSILOSTEGA, E. & M. Am. Nat. XVI, p. 1001; Sylloge III, p. 543.

Spots golden yellow, mostly occupying the margin of the leaves; perithecia yellow, very delicate, scattered, innate, slightly prominent, hypophyllous, 70—112 μ in diam.; sporules subhyaline, filiform, straight or curved, faintly triseptate, 60 x 3 μ, exuded in amber-colored masses. On leaves of *Galium pilosum*. New Jersey.

109. SEPTORIA PULCHELLA, B. & C. Grev. III, p. 8; Sylloge III, p. 494.

Spots pale red to nearly white, subcircular, one millim. in diam., border dark purple; perithecia light brown, innate, slightly prominent, amphigenous, 56 μ in diam.; sporules hyaline, cylindrical, curved, 35—40 x 3 μ ("5 μ (?) long," Grev.) On leaves of *Andromeda ferruginea*. Alabama and Florida.

110. SEPTORIA PURPURASCENS, E. & M.

Spots purplish red, 2—5 millim. broad, often coalescing; perithecia black, subglobose, innate, slightly prominent, hypophyllous, scattered, several in a spot, 150 μ in diam.; sporules hyaline, cylindrico-clavate, often curved, 3-septate, 40—45 x 3 μ, exuding in a mass. On leaves of *Potentilla Norvegica*. New York.

111. SEPTORIA PYROLÆ, E. & M. Journ. Mycol. I, p. 100.

Spots brown, small, limited by the blackened veinlets; perithecia at first yellowish-white, becoming black, hypophyllous; sporules filiform, slightly curved, ends obtuse, 25—35 x ½ μ. On leaves of *Pyrola secunda*. Lake Superior.

112. SEPTORIA QUERCETI, Thum. Bot. Gaz. V, p. 123; Sylloge III, p. 505.

"Spots large or small, suborbicular; perithecia black, shining, immersed, covered by the raised epidermis, but later, barely free, minute, punctiform, densely gregarious, hypophyllous; sporules hyaline, numerous, cylindrical, nearly straight or curved, ends obtuse, 2—4-septate, multinucleate, 18—22 x 2½—3 μ." On dying or dry leaves of *Quercus tinctoria*. South Carolina.

113. SEPTORIA RAVENELII, Thum. Sylloge III, p. 489; Rav. F. A., No. 508; Ellis, N. A. F., No. 747.

Spots light brown, irregular, 1—3 millim. in diam., border reddish purple; perithecia brown, soft, innate, a little prominent, scattered, few in a spot, hypophyllous, 160 μ in diam.; sporules hyaline, subfusiform, obscurely 3—4-septate, 40—70 x 3—4 μ, exuded in amber-colored threads. On leaves of *Prunus Caroliniana* and *P. serotina*. South Carolina to Pennsylvania.

114. SEPTORIA RECTA, B. & C. Sylloge III, p. 507.

"Perithecia black, occupying the whole surface of the leaves; sporules straight, linear, ends acutish, 25 μ long." On dead coriaceous leaves. South Carolina.

115. SEPTORIA PHODODENDRI, Cke. Sylloge III, p. 494.

"Spots orbicular, pallid, border black-purple; perithecia punctiform, aggregated or circinate; sporules filiform, 40 μ long. On leaves of *Rhododendron*. Maine.

116. SEPTORIA RHOINA, B. & C. Sylloge III, p. 483.

"Spots white, small, margin broad, black; perithecia central; sporules vermiform, flexuous, 75 μ long." On leaves of *Rhus Cotinus*. New England and New York.

(To be continued.)

NOTES ON FLORIDA FUNGI.--No. 14.

BY W. W. CALKINS, CHICAGO, ILLINOIS.

251. POLYPORUS NIVOSUS, B. & Br.—Found on dead gum trees along with *P. hemileucus*; rare.

252. POLYPORUS LINDBLADII, B. var. Very rare on old pine logs.

253. POLYPORUS FERRUGINOSUS, Fr.—Rare and only found once on an old log. Looks quite different from *P. obliquus*. The above three species have been passed upon by Dr. Cooke.

254. KNEIFFIA AMBIGUA, Karsten.—On an oak log; rare.

255. DIATRYPELLA DEUSTA, E. & M.—Abundant on palmetto stems.

256. DIATRYPELLA VERRUCÆFORMIS, Ehr.—On dead limbs.

257. DIATRYPELLA OPACA, Cke.—On dead holly.

258. CONIOSPORIUM ARUNDINIS, Cda.—On *Sabal* stems.

259. UREDO FICUS, Cast.—Abundant on fig leaves.

260. OIDIUM MEGALOSPORUM, B.—Abundant on rotten logs in swamps.

261. SEPTORIA HYDROCOTYLES, E. & M.—Abundant.

262. SEPTORIA SYMPLOCI, E. & M.—On leaves of the sugar tree.

263. SEPTORIA SERPENTARIA, E. & M.—On *Olea* leaves.

264. SEPTORIA NIPHOSTOMA, B. & C.—On *Magnolia* leaves.

265. TRABUTIA QUERCINA, Fr. & R.—Abunda t.

266. MELANCONIUM SABAL, Cke.—On *Sabal* stems.

267. PUCCINIA HYDROCOTYLES, Mont.—Abundant.

268. MACROSPORIUM NERII, Cke.—Abundant on fallen leaves of *Oleander*.

269. FUSARIUM YUCCÆ, Cke.—On *Yucca aloifolia* leaves.

270. HELICOTRICHUM OBSCURUM, Cda.—Abundant on fallen *Persea* leaves; very obscure, too.

271. TREMELLA MESENTERICA, Fr.—Occasional on dead limbs.

272. TREMELLA FOLIACEA, Pers.—Abundant on rotten limbs.

273. PHYLLACHORA DEMERSA, Cda.—On *Persea* leaves.

274. PHOMA LEGUMINUM, West.—On pods of *Glottidium*.

275. PHOMA CLITORIACARPA, Cke.—On pods of *Glottidium*.

276. MELOGRAMMA FULIGINOSUM, Ell.—On *Sabal* stems.

277. RUSSULA EMETICA, Fr.—Abundant in woods.

278. ENDOTHIA GYROSA, Sw.—On old oak limbs; abundant.

279. GEASTER HYGROMETRICUS, Pers.—Very common in sandy fields.

280. ANTHOSTOMELLA MINOR, E. & M.—A new species. Journ. Mycol., Vol. III, p. 43. Common on *Sabal* stems.

NEW LITERATURE.

BY W. A. KELLERMAN.

"GERMINATION OF ERGOT FROM THE WILD RYE." B. D. Halsted, in Bulletin of the Iowa Agricultural College, Botanical Dept., November, 1896.

Ergotted grains from *Elymus Canadensis* were placed in a large flower pot on March 10th. Two months later; growth became evident

and in a week the heads were formed and became stalked. On May 31st, the grains had mature heads and were then examined microscopically. The stems were two to three centimetres long and the ascigerous heads two to three millimetres in diameter and sphæroidal. The asci were 4 x 230 μ and 8-spored; the spores were 1 x 120 μ. Saccardo gives the size of spores of *Claviceps purpurea* (Fr.) as 50—76 μ. Dr. Halsted finds that the ascigerous stems from the cultivated rye as figured by Dr. Winter (Pilze II, 91) are much shorter and the heads larger than those mentioned above. That the species of ergot infecting the wild rye is the same as that of the cultivated rye, *Claviceps purpurea*, remains an open question.

"NOTES UPON THE PERONOSPOREÆ FOR 1886." l. c.

"NOTES UPON THE USTILAGINEÆ." l. c.

"THE ASH-LEAF RUST." l. c.

"THE CLOVER MOULD (Cladosporium). l. c.

"FUNGI OF FOREST TREES." l. c.

"COLORADO FUNGI." July, 1886. l. c.

Twenty-five species are enumerated, of these, the following new: *Tubercularia Lupini*, Farlow, *in litt*, on *L. Kingi*, Watson, Gunnison, Colo.; *Puccinia sp.*, on *Artemisia Mexicana*, Willd., *Aecidium* and *Puccinia*. The æcidia are long and slender and perhaps new. Of the *Puccinia*, Dr. Farlow says: "It is not the usual form on *Artemisia* and does not exactly correspond to anything I have examined. * * I think it may be new and the æcidium may very likely be its æcidium." A parasitic fungus was found on *Pseudotsuga Douglasii*, Carr, causing distortions called "eagle nests." Of this, Dr. Farlow says: "It has almost a greater similarity to some of the *Cæomata* and *Abies* than to a *Peridermium*; but it has a peridium more delicate than in any species known. It seems to be new. In habit and the distinctions produced, it reminds one of *Aecidium corruscens*, Fr., but unless it changes very much as it grows older, it cannot be that species. It is characterized by the size of its spores and size and thin markings of peridial cells."

"RELATION BETWEEN 'CEDAR-APPLES' AND THE LEAF RUST ON THE WILD CRAB APPLE." l. c.

"A PARTIAL LIST OF IOWA POWDERY MILDEWS." A. S. Hitchcock. l. c.

"FUNGI INJURIOUS TO GRASSES AND CLOVERS." Wm. Trelease, St. Louis, Mo. From "Beal's Grasses of North America."

A popular account, with illustrations of fourteen species, covering pp. 418-431.

"UEBER EINIGE AUF RUBUS ARCTICUS L. VORKOMMENDE PARASITISCHE PILZE." Af G. Lagerheim. Separataftryck ur Botaniska Notiser, 1887.

"ESPERIMENTI SUL PARASITISMO DELL' AGARICUS MELLEUS, VAHL." Di L. Savastano. Nuovo Giornale Batanico Italiano, April, 1887.

"BOTANICAL MANUALS FOR STUDENTS." Chas. E. Bessey. American Naturalist, April, 1887.

"ST. GEORGE'S MUSHROOM, AGARICUS GAMBOSUS," Fr. Worthington G. Smith, Gardner's Chronicle, April 23, 1887.

"AN INTRODUCTION TO THE STUDY OF LICHENS." By Henry Willey. Pp. 72, ten plates.

TABLE OF CONTENTS.

PAGE.

ENUMERATION AND DESCRIPTION OF THE SEPTORIAS OF NORTH AMERICA - - - - - - - - - - - - - - 61

NOTES ON FLORIDA FUNGI - - - - - - - - - - - - 70

NEW LITERATURE - - - - - - - - - - - - - - 70

Index to Described Species.

PAGE.

Cryptosporium Scirpi, Pk.....67
Glœosporium Phegopteridis, Pass.....65
Septoria gossypina, Cke.....61
Septoria graminum, Desm.....61
Septoria Gratiolæ, R. & M.....61
Septoria Helianthi, E. & K.....61
Septoria Houstoniæ, Hark.....61
Septoria Hydrocotyles, Desm.....61
Septoria ilicifolia, Cke. & Ell.....62
Septoria inconspicua, B. & C.....62
Septoria increscens, Pk.....62
Septoria infuscata, Winter.....62
Septoria irregularis, Pk.....62
Septoria kalmicola (Schw.).....62
Septoria Kellermaniana, Thum.....62
Septoria Lactucæ, Pass.....63
Septoria lactucicola, E. & M.....63
Septoria Lamii, Passer.....63
Septoria lepidicola, E. & M.....63
Septoria Leptostachyæ, E. & K.....63
Septoria Liquidambaris, C. & E.....63
Septoria Lobeliæ, Pk.....64
Septoria Lophanthi, Winter.....64
Septoria Ludwigiæ, Cke.....64
Septoria Lupini, Hark.....64
Septoria conspicua, R. & M.....64
Septoria lythrina, Pk.....64
Septoria Magnoliæ, Cke.....65
Septoria malvicola, E. & M.....65
Septoria melanophthalmi, B. & C.....65
Septoria Menthelinæ, E. & K.....65
Septoria microsperma, Pk.....65

PAGE.

Septoria Mimuli, E. & K.....65
Septoria mirabilis, Pk.....65
Septoria Nabali, E. & C.....66
Septoria narvisiana, Sacc.....66
Septoria niphostoma, B. & C.....66
Septoria noctiflora, E. & K.....66
Septoria Nolitangeria, Ger.....66
Septoria ochroleuca, B. & C.....66
Septoria Œnotheræ, West.....66
Septoria oleandrina, Sacc.....67
Septoria Ostryæ, Pk.....67
Septoria pachyspora, Ell. & Hol.....67
Septoria pastinacina, Sacc.....67
Septoria paupera, Ellis.....67
Septoria Peckii, Sacc.....67
Septoria Pentstemonis, E. & E.....67
Septoria Photiniæ, B. & C.....67
Septoria Pileæ, Thum.....68
Septoria platanifolia, Cke.....68
Septoria podophyllina, Pk.....68
Septoria Polygalæ, Pk. & Cke.....68
Septoria Polygonorum, Desm.....68
Septoria Pruni, Ellis.....68
Septoria pallostega, E. & M.....68
Septoria pulchella, B. & C.....69
Septoria purpurascens, E. & M.....69
Septoria Pyrolæ, E. & E.....69
Septoria quercesti, Thum.....69
Septoria Ravenelii, Thum.....69
Septoria recta, B. & C.....69
Septoria Rhododendri, Cke.....69
Septoria rhoina, B. & C.....69